

-continued

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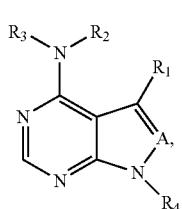
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What is claimed is:

1. A method of treating a blood cell cancer comprising 45 administering to a subject in need thereof a composition containing a therapeutically effective amount of an inhibitor of a tyrosine kinase, wherein the tyrosine kinase is interleukin-2-inducible tyrosine kinase (ITK) or Bruton's tyrosine kinase wherein the inhibitor has the structure of Formula (A):



Formula (A)

55

60

wherein:

A is N;

R₁ is L₂-(substituted or unsubstituted heteroaryl), or L₂-⁶⁵
(substituted or unsubstituted aryl), where L₂ is a bond,

O, S, —S(=O), —S(=O)₂, C(=O), -(substituted or unsubstituted C₁-C₆ alkylene), or -(substituted or unsubstituted C₂-C₆ alkenylene);

R₂ and R₃ are independently selected from H, lower alkyl and substituted lower alkyl;

R₄ is L₃-X-L₄-G, wherein,

L₃ is optional, and when present is an optionally substituted or unsubstituted alkylene, optionally substituted or unsubstituted cycloalkylene, optionally substituted or unsubstituted alkenylene, optionally substituted or unsubstituted alkynylene;

X is optional, and when present is O, —C(=O), S, —S(=O), —S(=O)₂, —NH, —NR₉, —NHC(O), —C(O)NH, —NR₉C(O), —C(O)NR₉, —S(=O)NH, —NHS(=O)₂, —S(=O)₂NR₉—, —NR₉S(=O)₂, —OC(O)NH—, —NHC(O)O—, —OC(O)NR₉—, —NR₉C(O)O—, —CH=NO—, —ON=CH—, —NR₁₀C(O)NR₁₀—, heteroarylene, arylene, —NR₁₀C(=NR₁₁)NR₁₀—, —NR₁₀C(=NR₁₁)—, —C(=NR₁₁)NR₁₀—, —OC(=NR₁₁)—, or —C(=NR₁₁)O—;